



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/611,478

07/01/2003

Frank B. Wyatt II

9040-211P

3302

20792

7590

05/31/2006

MYERS BIGEL SIBLEY & SAJOVEC

PO BOX 37428

RALEIGH, NC 27627

EXAMINER

NGUYEN, CHAU N

ART UNIT

PAPER NUMBER

2831

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,478

Applicant(s)

WYATT ET AL.

Examiner

Chau N. Nguyen

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,8-16 and 50-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,8-16 and 50-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 8, 10-13 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Moe et al. (5,959,245).

Moe et al. discloses a coaxial cable (Figure 1, cols 3 and 4) comprising a metallic inner conductor formed of a first material and having a first thickness, a dielectric layer circumferentially surrounding the inner conductor formed of a second material and having a second thickness, a metallic outer conductor circumferentially surrounding the dielectric layer of a third material and having a third thickness, and a polymer jacket circumferentially surrounding the outer conductor formed of a fourth material and having a fourth thickness, the first material being copper (re claim 10), the second material being a foamed polymeric material (re claim 11), the dielectric layer having a density gradient across its cross-section such that density increases with increasing radial distance from the

inner conductor (re claim 12), and the third material being copper (re claim 13).

Re claims 1-3, 8 and 16, the cable of Moe et al. comprises structure and materials as claimed. Accordingly, the properties and characteristics as recited in the claimed invention are inherent from the cable of Moe et al.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moe et al.

Claim 9 additionally recites the cable having a length of at least 1,000 feet. Although not disclosed by Moe et al. it would have been obvious that depending on the specific use of the resulting cable such as providing transmission between a long distance, one skilled in the art would modify the cable of Moe et al. to have at least one 1,000 feet since cables having a length of at least 1,000 feet are known in the art.

6. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moe et al. in view of Martin (4,343,660).

Claims 14 and 15 additionally recite a dry corrosion-resistant material being interposed between the outer conductor and the jacket. Martin discloses a method of inhibiting corrosion in copper by coating copper with a barrier of a dry corrosion-resistant material (sulfonates, see the abstract). It would have been obvious to one skilled in the art to provide a barrier of a dry corrosion-resistant material as taught by Martin between the outer (copper) conductor and the jacket of Moe et al. to prevent the corrosion of copper.

7. Claims 1 and 50-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chraplyvy et al. (6,205,268) in view of Moe et al.

Chraplyvy et al. discloses the invention substantially as claimed in claims 50-55 except for two coaxial cables as claimed in claim 1. Moe et al. discloses a coaxial cable comprising the invention as claimed in claim 1. It would have been obvious to one skilled in the art to use coaxial cables as taught by Moe et al. in the network of Chraplyvy et al. since the cable of Moe et al. has enhanced bending and handling characteristics and is an improved low-loss and improved attenuation properties coaxial cable.

Response to Arguments

8. Applicant's arguments filed April 5, 2006 have been fully considered but they are not persuasive.

Regarding the 35 USC 102 rejection, applicant argues that Moe cannot anticipate claims 1-3, 8, 10-13 and 16 because the cable disclosed by Moe is limited to use in 50 ohms applications, and Moe is silent as to the cable having a return loss of -25 dB. This argument is not found persuasive. Moe (col. 9, lines 49-56) discloses the cables of his invention have found particular utility in 50 ohms applications. Moe, however, does not disclose his cables cannot be used in other

applications. Beside, as stated in previous Office Action, Moe not only discloses a cable comprising an inner conductor formed of a first material and having a first thickness, a dielectric layer formed of a second material and having a second thickness, an outer conductor formed of a third material and having a third thickness, and a jacket formed of a fourth material and having a fourth thickness.

Moe also discloses the first material being copper, the second material being a foamed polymeric material, the dielectric layer having a density gradient across its cross-section such that density increases with increasing radial distance from the inner conductor, and the third material being copper. Moe discloses a cable comprising the structure and material as claimed, therefore the properties and characteristics recited in the claims would be inherent from the cable of Moe.

Furthermore, according to MPEP 2112 section III. and MPEP 2112.01 section I, a rejection under 35 USC 102/103 can be made when the prior art product seems to be identical except that the prior art is silent as to an inherent characteristic, and when the structure recited in the reference is substantially identical to that of the claims, claimed properties or functions are presumed to be inherent. Also, it has been held that where the claimed and prior art products are identical or substantially identical in structure, a *prima facie* case of either anticipation or

obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433.

Regarding the 35 USC 103 rejection, applicant argues that the cable of Moe does not have the capacity to function in an HFC network. As such, combining a network disclosed by Chraplyvy with the cable of Moe would destroy the operability of the Chraplyvy network. Examiner disagrees. Although the preamble of claims 50-55 recite a hybrid fiber cable (HFC) network, the claimed invention is directed to a coaxial cable which is then used in the HFC network. It has been held that the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. If the cable of Moe cannot be used in an HFC network as taught by Chraplyvy, then how can the claimed cable be. They both are identical in structure and material.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Chau N Nguyen
Primary Examiner
Art Unit 2831